

Twitter as a Communication and Information Gathering Tool for Educators

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Abstract: Online social media and networking sites have emerged as prominent communication and information gathering tools of the twenty first century that users may access conveniently through a number of devices. With the new generation of learners being “digital natives” and the number of technological devices that are readily available to learners, new methods of instruction are being considered in classrooms around the world. A web-based instructional module was developed to instruct K-12 teachers about how to use Twitter, a social media, as a communication and information gathering tool. Surveys were used to gather participants’ perceptions about using Twitter in their profession as an educator. The results indicate that although teachers are likely to use Twitter to gather information and resources, there are varying reasons that cause teachers to hesitate using Twitter as a communication tool.

Introduction

Blogging and microblogging are emerging technology tools being used throughout the world for many purposes. Some of these purposes include social media, networking, communication and gathering resources. Twitter can be considered a microblogging tool and can be a great resource for teachers to use as a communication and information gathering tool. There are many educators that are unaware of the contributions Twitter can make towards their teaching. An instructional design research project module was developed to teach educators how to use Twitter as a communication and information gathering tool.

Background

Twitter allows users to “tweet” or type messages in 140 characters or fewer which are then sent onto a timeline. This tool allows users to follow other users that interest them and even topics or organizations. Tweets are searchable and allow others to search for them (Farmer, 2009). Twitter has a rapid-response attribute allowing people to receive immediate and instantaneous responses. On December 18, 2012, Twitter announced it had over 200 million monthly active users from all around the world.

Some believe that learning takes place in a social context and that higher cognitive processes originate from social interactions with knowledge acquisition “firmly embedded in the social and emotional context in which the learning takes place. Social media researchers determined that Twitter attracts more interest-driven participation rather than friendship-driven participation unlike other social media like Facebook (Dunlap & Lowenthal, 2009). Colleges have seen positive effects of using Twitter in their large lecture halls to promote student engagement and participation (Miners, 2009). The use of a web-based communication tool can help students feel more comfortable sharing their ideas and questions if they don’t feel comfortable asking in person. Twitter has also been seen as a good formative evaluation tool (Stieger & Burger, 2010).

For educators, Twitter is a good way to build their personal learning network, participate in resource sharing and get the help they may need for their classroom (Anderson, 2011). It also engages both educators as well as students in a professional community of practice connecting them to practitioners, experts and colleagues. For educators and learners alike, Twitter can engage them in learning as a function of the activity, culture and context of the community of practice (Dunlap & Lowenthal, 2009).

As already mentioned, there has been ample evidence of Twitter’s positive effects in colleges and as a resource-sharing tool. Because most studies have been focused towards higher education, the researcher is interested in studying if Twitter could be used effectively in K-12 classrooms and if K-12 teachers in Hawai’i would consider implementing Twitter into their work as educators.

Methodology

Target Population

The target population included K-12 educators in the state of Hawai’i, which consisted of men and women of various ethnic, cultural and socioeconomic backgrounds. Participants were private school teachers from the state of Hawai’i.

Method of Delivery

An asynchronous web-based instructional design module was developed using the website Weebly (<http://twitterforeducators.weebly.com/>). The researcher wanted to make the instruction available to the target population at any time from anywhere. The technology skills and knowledge of participants were varied so the instruction was designed to be simple and straightforward. E-mails were sent out to various educators around the state as well as educators within the Educational Technology department at the University of Hawai’i at Manoa. Participants were asked to complete the module within a two-week period. Due to a low response rate, the researcher had to request educators to ask their colleagues to participate and the module completion period was extended for another 15 days.

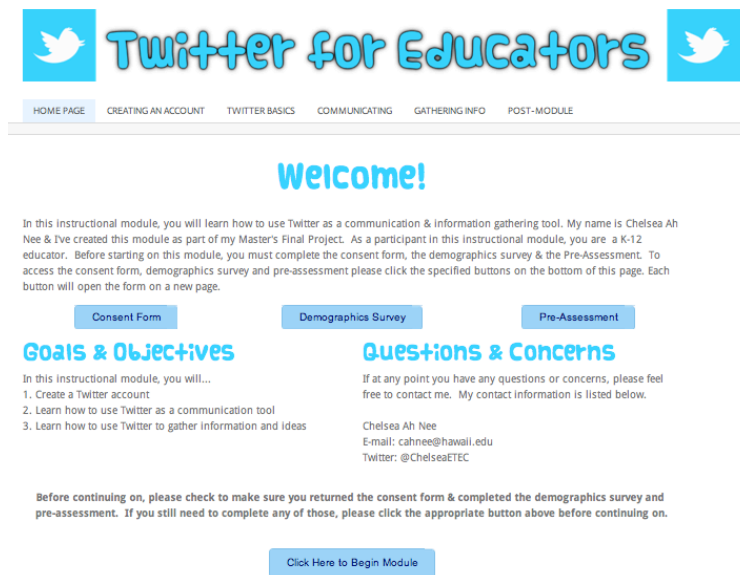


Figure 1. “Twitter for Educators” Module Home Page

The module features six different sections; home, creating an account, twitter basics, communicating, gathering resources and post module. Figure 1 shows a screen shot of the home page of the instructional module. Within the content are embedded links, videos and activities. In the creating a Twitter account section, participants are informed how to create a Twitter account in order to complete the practice activities that are embedded into the module. Participants were instructed to create an account separate from any personal accounts to keep their identities anonymous. The third section educates participants on what Twitter is and basic Twitter terminology. The fourth section is broken down into 3 sub-sections; communicating with educators, communicating with students and communicating with parents. The communication section focuses on professionalism, ways to communicate, what to communicate and techniques for communicating. In the fifth section, gathering info, participants are informed how they can use Twitter to gather and share information such as creating lists, following users and participating in real-time professional development. The last section is a conclusion of the module and includes the final step of completing the module, the post-module survey.

Data Collection

A pre-assessment and demographics survey were administered prior to completing the instructional module and a post-assessment and attitudinal survey were conducted post completion of the instructional module. The pre-assessment and post-assessment consisted of 7 multiple choice questions. The demographics survey questions consisted of 22 multiple choice and open-ended questions. The post-module survey consisted of 23 multiple choice and open-ended questions. Google Drive’s “Forms” tool was used to develop, create, publish and embed all the online surveys used in the instructional module. The answers collected from the surveys were anonymous and was collected by Google Forms in a spreadsheet format, which were later analyzed by the researcher.

Results

Attitude Towards Using Twitter

Figure 2 shows the likelihood of participants using Twitter to communicate with their colleagues. Participants had similar reasoning for their opinions on using Twitter as a communication and information-gathering tool. Prior to completing the instructional module, participants were very hesitant about using Twitter to communicate with their colleagues and students. Although some participants' views didn't change after completing the module, most participants swayed toward Twitter being an effective communication and information-gathering tool.

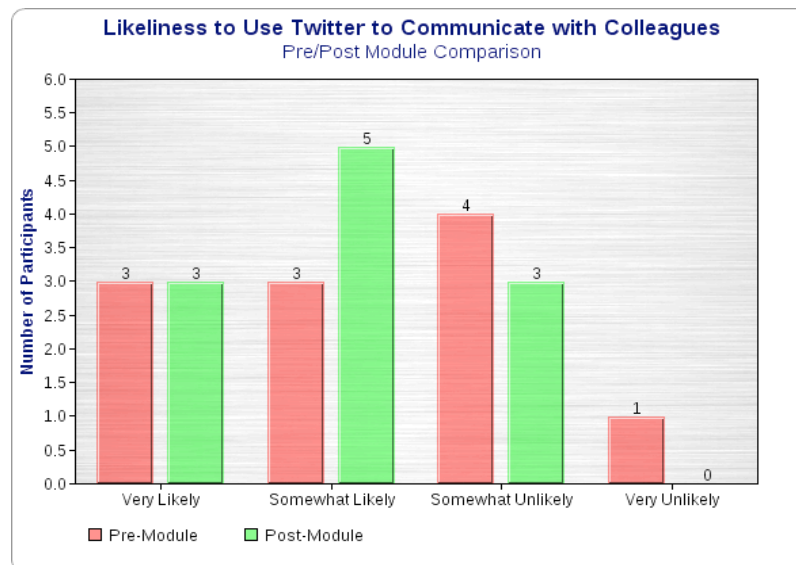


Figure 2. Using Twitter to Communicate with Colleagues

Three participants said they were somewhat unlikely to use Twitter to communicate with colleagues even after completion of the module. They attributed this to the fact that their colleagues don't use Twitter and that they feel their e-mail or school websites are adequate to meet their communication needs.

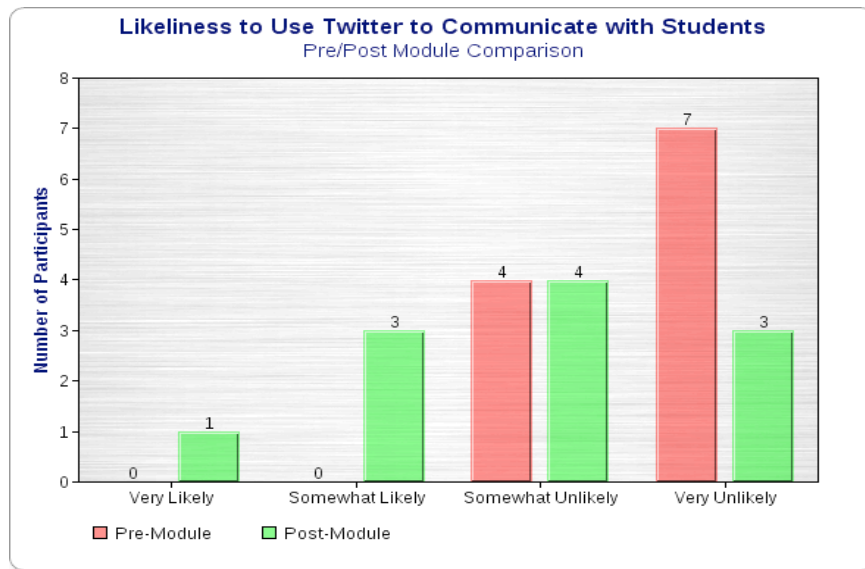


Figure 3. Using Twitter to Communicate with Students

Figure 3 shows the likelihood of participants using Twitter to communicate with their students. There were no participants that were even “somewhat likely” to use Twitter to communicate with their students. However, after completing the module, 37% of participants were “somewhat likely” or “very likely” to use Twitter to communicate with their students. The main concern was their students’ age and whether or not social media use was allowed their schools. One participant felt that it was “not safe or closed” while another participant was concerned about some students’ capabilities to use Twitter appropriately and stated:

“Although there are educators that use social media to communicate with students, I don't feel like all students are ready for that movement. Technology has done a lot for education but I'm afraid there will be students that would abuse this.”

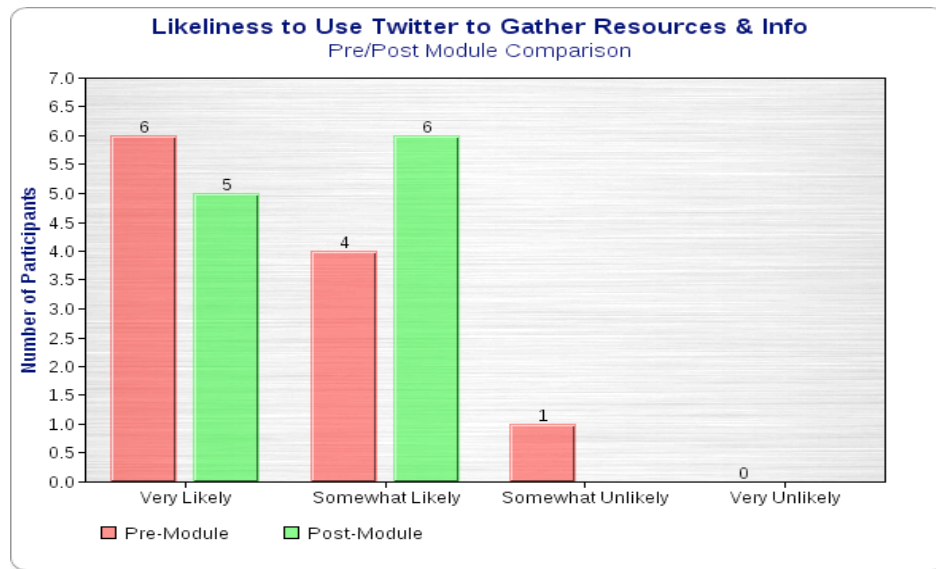


Figure 4. Using Twitter to Gather Resources and Information

Figure 4 shows the likelihood of participants using Twitter to gather resources and information. There were no participants that were unlikely to use Twitter to gather resources and information. Although the one participant that was somewhat unlikely to use Twitter to gather resources and information changed his/her mind, one participant changed his/her answer from “very likely” to “somewhat likely” in the post-module survey.

Content and Technologies

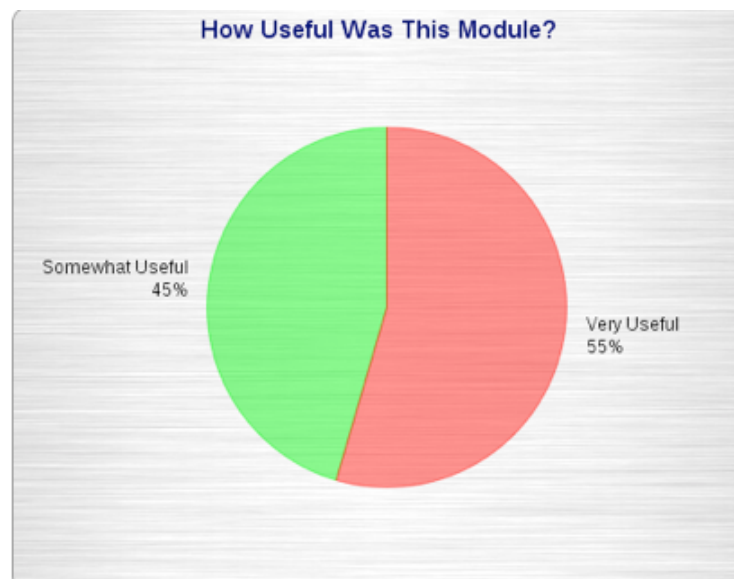


Figure 5. Usefulness of Instructional Module

Figure 5 shows 55% participants found the instructional module to be very useful, 45% found it to be somewhat useful while none of the participants found it to be somewhat useless or useless. The participants credited the content, videos and activities for contributing to the module's usefulness.

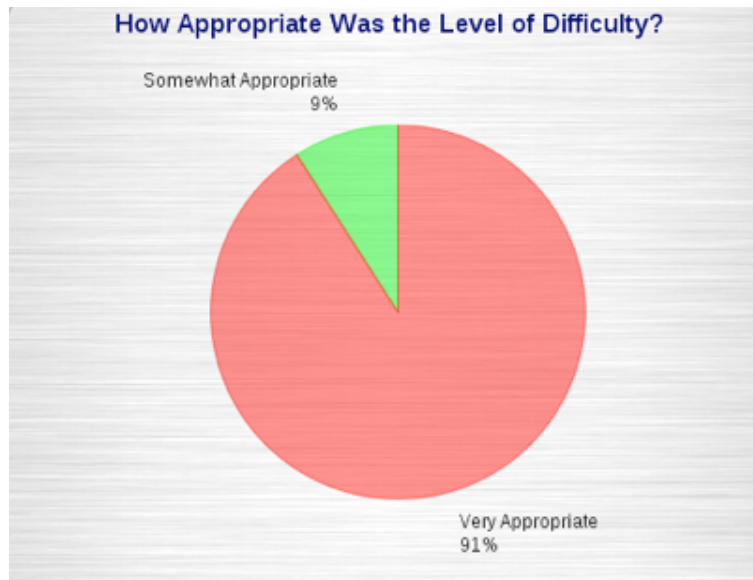


Figure 6. Appropriateness of Instructional Module

Figure 6 shows that 91% of the participants found the module's level of difficulty to be very appropriate and 9% found it to be somewhat appropriate. None of the participants found the level of difficulty to be inappropriate.

One suggestion for improvement included moving all of the practice activities to the very end of the module so participants could avoid switching screens going back and forth from the Twitter website and the instructional module website. Another suggestion was to create original videos specifically for the instructional module instead of the ones that were used from YouTube. Participants also wanted more detailed information about certain aspects of Twitter that were mentioned in the module such as hash tags, lists and Storify. Additionally, one participant suggested shortening the section that provides information on how to create a Twitter account.

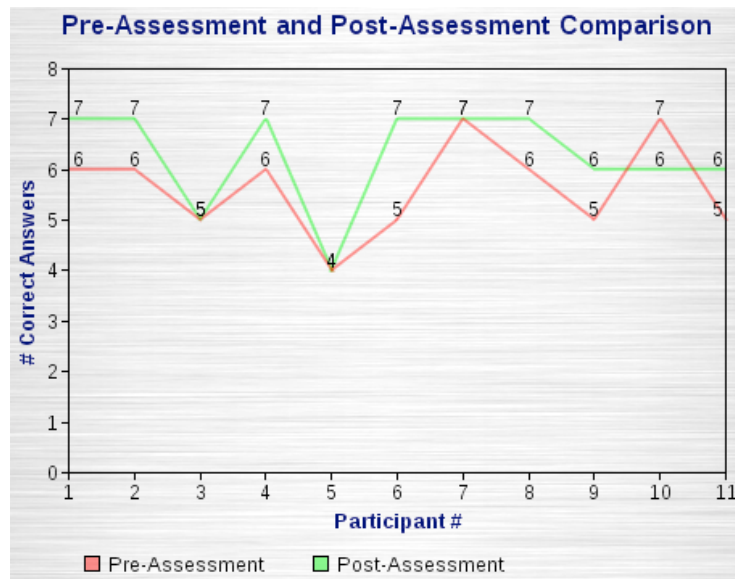


Figure 7. Pre-Assessment/Post-Assessment Comparison

Figure 7 shows a comparison of the amount of correct answers participants answered on pre-assessment and post-assessment. There was only one participant that got all seven questions correct on both the pre-assessment and the post-assessment. Five of the participants got only one question wrong, four participants got two questions wrong and one participant got three questions wrong.

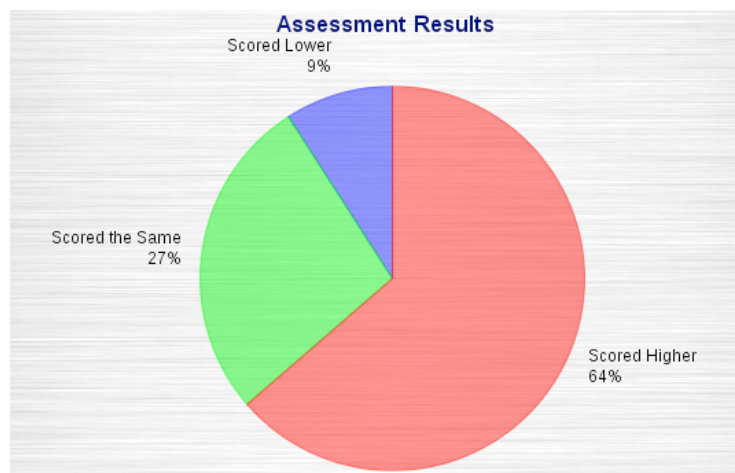


Figure 8. Assessment Results

As shown in Figure 8, 64% of the participants scored higher on their post-assessment compared to their pre-assessment after they completed the instructional module. The results also show that 27% of the participants scored the same on both the pre-assessment and post-assessment while 9% of the participants scored lower on the post-assessment than on his/her pre-assessment.

Implications and Discussion

The goal for this research project was to develop an effective and manageable instructional module to deliver information on how teachers can integrate Twitter into their profession. The researcher also wanted to determine if the participants would consider integrating Twitter into their profession once they were informed on how they could use it as a K-12 educator. The results from this study indicate that the instructional module did in fact meet the instructional goals because participants rated the instructional module to be both effective and manageable as well as containing helpful activities and content that they were able to learn from. The researcher also was able to collect data on the participants' attitude towards Twitter prior and post completion of the module.

The results shown in Figure 4 indicate that one participant went from "Very Likely" to use Twitter to gather resources and information to "Somewhat Likely." The reason for this is unknown because no comment was made as to why their answer was changed. One possibility is the fact that there were some complications with the post-survey for two participants. They both had to re-submit their post surveys, which could have resulted in rushed or altered original thoughts and answers.

The complications some participants encountered with the surveys could have also caused one of the participants to score lower on his/her post-assessment in comparison to his/her pre-assessment as shown in Figure 8. Considering there were only 7 questions in the assessments and about 50% of the participants got one or less questions wrong, the assessment questions should be re-evaluated to be an appropriate level of difficulty for the target audience. It seems the assessment may have been a little too simple for the participants and there were not enough questions to effectively evaluate the participants' knowledge of Twitter prior to completing the module.

The sample size of participants for this research study was too small and selective. The target population for this research project was K-12 teachers in Hawai'i. There was a low response rate and only 11 educators completed the module. To validate the results of this study, more participants need to take part in this research study. Additionally, the researcher would like to have collected data on the specific grade level participants taught to see which grade levels teachers were more or less likely to use Twitter with in their classrooms.

Conclusion

Although teachers are likely to use Twitter to gather information and resources, there are varying reasons that cause teachers to hesitate using Twitter as a communication tool. Results from the post-survey indicate that after participants completed the instructional module and learned how they could use Twitter as a communication and information gathering tool, the likeliness of them using it in their profession increased. The age of their students impacted participants' decision to use Twitter to communicate with their students. Teachers with students in the upper spectrum of K-12 were more likely to use Twitter to communicate with their students. Participants also found Twitter to be an

effective way to gather resources and information. Participants were more opened to using Twitter as a communication and information gathering tool than as a communication tool. They were pleased to find a new tool to integrate into their profession as a teacher. Results also indicate that if social media were more widely accepted in the education system, participants would feel more comfortable using it in their profession. Because the use of social media tools like Twitter in the profession of education is still emerging, more research must be done to see how it can be integrated into K-12 classrooms effectively.

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